

12. (Once Amended) A protease substrate comprising a flexible peptide and including two fluorescence dye groups, the dye groups being proximate such that free energy attractions draw the dye groups together so as to self-quench fluorescence of the dye groups by intramolecular dimerization or stacking.

(a2) *Sub* *B3* 21. (Once Amended) An assay method of detecting a microorganism, which microorganism produces a characteristic enzyme, comprising:

- (a3)* a) providing an enzyme substrate specific for said characteristic enzyme produced by said microorganism comprising two or more fluorescence dye groups bound to a flexible peptide comprising one or more bonds cleavable by said characteristic enzyme, the dye groups being proximate such that free energy attractions draw the dye groups together so as to self-quench fluorescence of the dye groups, wherein self quenching of fluorescence of the dye groups is effected by dye dimerization or stacking, and
b) cleaving one or more of said cleavable bonds of the peptide by said characteristic enzyme to release the fluorescence dye groups from dye dimerization or stacking, thereby producing an increase in fluorescence intensity which indicates the presence of said microorganism.

A version marked up to show changes made to the claim(s) relative to the previous version of the claim(s) is attached.

Remarks

§ 112 Rejection, Second Paragraph

Claims 1,12, and 21 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant(s) regards as the invention.

Applicants submit that the Examiner's rejections have been overcome by the following actions taken by Applicants:

Amending claims 1, 12, and 21 to eliminate the term "sufficiently."

Amending claims 1, 12, and 21 to eliminate the term "essentially."

Amending claim 1 to describe that the presence of an enzyme is being assayed.

Amending claim 21 to clarify that the presence of a microorganism is being assayed.